

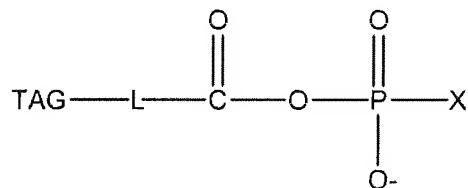
REMARKS

Courtesies extended to Applicants' representative during the telephone interview held on May 3, 2007, are acknowledged with appreciation. The contents of the telephone interview are reflected herein.

By the present communication, claims 1, 9 and 14-19 have been amended, and new claims 30-34 have been added to define Applicants' invention with greater particularity. No new matter is introduced by the subject amendments as the amended claim language is fully supported by the specification and original claims. In addition, non-elected claims 22-26 have been cancelled without prejudice, subject to Applicants' right to file divisional application(s) based thereon.

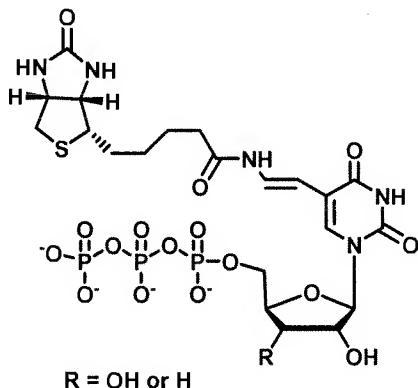
Upon entry of the amendments submitted herewith, claims 1-21 and 27-34 will be pending, with claims 1-9, 13-19, 27, 28 and 30-34 under active prosecution (and claims 10-12, 20, 21 and 29 withdrawn from consideration, subject to a request for rejoinder). A detailed listing of all claims that are, or were, in the application, along with an appropriate status identifier, is provided in the Listing of Claims, beginning on page 2 of this communication.

The rejection of claims 1, 3-7, 13, 14, 27 and 28 under 35 USC § 102(b) as allegedly being anticipated by Smith et al. (FEBS Letters Vol. 215, No. 2, pp. 305-310, 1987), is respectfully traversed. Applicants' invention, as defined, for example by claim 27, distinguishes over Smith et al. by requiring a tagged acyl phosphate or phosphonate probe having the formula:

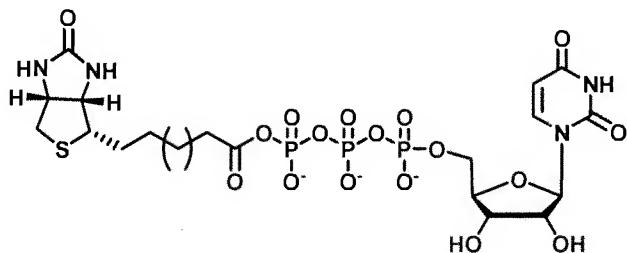


wherein TAG is a detectable moiety and X is an affinity moiety. Thus, according to the present invention, the TAG (e.g., biotin) is linked to an affinity moiety (e.g., a nucleoside) through an acyl linkage.

In contrast, when the Smith et al. paper makes reference to “biotinyl UTP”, they are referring to the compound having the systematic name: 5-(allylamidobiotin)-UTP (and not the compound suggested in the Office Action to have been “disclosed” by Smith et al.). The 5-(allylamidobiotin)-UTP employed by Smith et al. was synthesized according to reference 10 (Proc. Natl. Acad. Sci. USA Vol. 78, No 11, pp. 6633-6637, 1981). As indicated upon review of reference 10, the Smith et al. biotinyl UTP has the structure:



whereas the corresponding UTP-derived acylphosphate contemplated by the present claims has the following distinctly different structure:

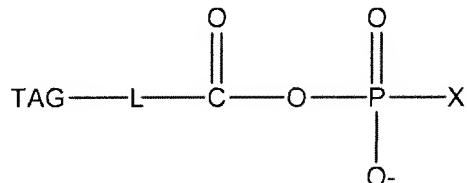


Upon inspection of the two structures set forth above, it can readily be seen that invention compounds comprise a TAG (e.g., biotin) linked to an affinity moiety (e.g., a nucleoside) through an acyl linkage, whereas the “biotinyl UTP” referred to by Smith et al. contains a biotin moiety covalently bound to the C-5 position of the UTP pyrimidine ring. This is seen to be a distinctly different structure than required by the present claims.

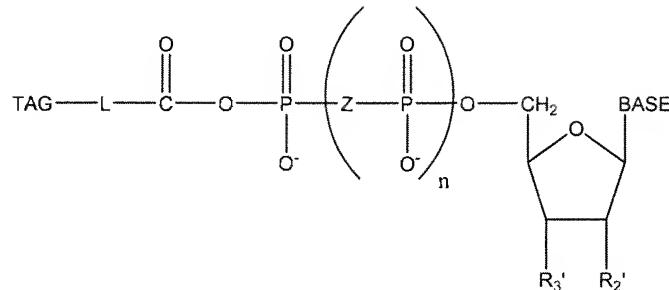
Thus, even though the reference may contemplate many of the same elements, they are clearly assembled in a very different way, to give distinctly different compounds. Note that the biotin moiety in the Smith et al. reference is attached at the pyrimidine ring to provide a stable UTP analog. In contrast, the biotin moiety in the acylphosphates disclosed and claimed herein is linked through a labile acyl group on the γ -phosphate. These distinct differences reflect the fact that very different applications are contemplated for these two structurally different UTP analogs: invention compounds are employed to label proteins, whereas the Smith et al. compounds are employed for RNA synthesis.

To the extent that the term “biotinylated UTP” may be considered to be ambiguous, the meaning of that terminology as used in the Smith et al. reference is informed by the express citation of reference 10, and not by what might be retrieved today upon search of a suitable database. Specifically, the suggestion in the Office Action that invention compounds were allegedly “disclosed” by Smith et al. (supported by reference to search results which improperly identify the compound which was actually disclosed by Smith et al.) is clearly erroneous.

There can be no such ambiguity with respect to the present claims because the compounds contemplated herein are defined with reference to specific structures, i.e., the following structure as set forth in claim 27:



and the more specific structure set forth in claim 1:



It is clear upon inspection of the invention structures set forth above that, unlike the structures contemplated by Smith et al., "TAG" is linked to an affinity moiety via an acyl linkage. Moreover, when the affinity moiety is a nucleotide or a nucleoside, linkage of a TAG thereto does not involve modification of the base thereof, as is required by the reagents employed by Smith et al. Therefore, the differences between the invention compounds and the compounds employed by Smith et al. are submitted to be clear.

Accordingly, reconsideration and withdrawal of the rejection under 35 USC § 102(b) are respectfully requested.

In view of the above amendments and remarks, reconsideration and favorable action on all claims are respectfully requested. In the event any issues remain to be resolved in view of this communication, the Examiner is invited to contact the undersigned at the telephone number given below so that a prompt disposition of this application can be achieved.

Respectfully submitted,

Date June 25, 2007

By 

FOLEY & LARDNER LLP
Customer Number: 30542
Telephone: (858) 847-6711
Facsimile: (858) 792-6773

Stephen E. Reiter
Attorney for Applicant
Registration No. 31,192